Attorney Docket No. 0756-2367

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:	)	Confirmation No.: 6718
Masaaki HIROKI et al.	)	Examiner: Zhi Qiang Qi
Serial No. 09/961,055	)	Group Art Unit: 2871
Filed: September 24, 2001	)	
For: ELECTRO-OPTICAL DISPLAY DEVICE HAVING THIN FILM TRANSISTORS INCLUDING A GATE INSULATING FILM CONTAINING FLUORINE	)	

PRE-APPEAL BRIEF REQUEST FOR REVIEW

Honorable Commissioner of Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

The present *Request* is filed pursuant to the provisions of the Pre-Appeal Brief Conference Pilot Program (1296 Off. Gaz. Pat. Office 67 (July 12, 2005); extended January 10, 2006).

The Official Action mailed February 18, 2009, has been received and its contents carefully noted. Filed concurrently herewith is a *Request for Two Month Extension of Time*, which extends the shortened statutory period for response to July 18, 2009. Also, filed concurrently herewith is a *Notice of Appeal*. Accordingly, the Applicant respectfully submits that this response is being timely filed.

The Applicant requests review of the final rejection in the above-identified application. In response to the Examiner's objection to the title, a *Supplemental Amendment* is filed herewith. The review is requested for the following reasons.

The Official Action includes improper rejections, errors in fact and omissions of essential elements required to establish a *prima facie* rejection.

The Official Action improperly asserts that Tsujikawa teaches "the dielectric film (121) also having a function as gate insulating film ... and the dielectric insulating film (121) together also functions as an interlayer insulating film" (page 3, Paper No. 20090213). That is, the Official Action appears to be asserting that the dielectric 121 of Tsujikawa corresponds with both a gate insulating film and an interlayer insulating film of the present claims. The Applicant respectfully disagrees and traverses the assertions in the Official Action. It is an error in fact to assert that Tsujikawa's dielectric 121 corresponds with two separately claimed films, i.e. a gate insulating film and an interlayer insulating film

The Official Action is incomplete in that it does not make clear how the features of the newly cited reference, Oka, are combined with the features of Tsujikawa. Specifically, the Official Action has not made clear which elements of Oka correspond to which elements of Tsujikawa, and how such elements are combined or modified, much less why it would have been obvious to make such changes. Specifically, the Official Action implicitly concedes that Tsujikawa lacks a teaching of an interlayer insulating film formed over a thin film transistor, where the interlayer insulating film has a contact hole and is in contact with a gate electrode and where the gate insulating film covers a semiconductor film and is in contact with a top surface and a side surface of the semiconductor film (page 5, Paper No. 20090213). The Official Action appears to be relying on Oka's gate insulator film 405 and interlevel insulator 410 to allegedly cure the deficiencies in Tsujikawa (Id.). However, the Official Action has not described how Oka's gate insulator film 405 and interlevel insulator 410 would be combined with Tsujikawa. For example, the Official Action does not make clear which layers of Tsujikawa would be modified or replaced.

The Official Action has not set forth a logical reason why one of ordinary skill in the art at the time of the present invention would have combined Oka's gate insulator film 405 and interlevel insulator 410 with Tsujikawa. The asserted motivation to combine Tsujikawa and Oka does not appear to relate to the proposed modification of

Tsujikawa. The asserted motivation to combine these references, i.e. "for achieving ... an increase in ON current of a TFT" (page 5, Paper No. 20090213) does not appear to relate to Oka's gate insulator film 405 and interlevel insulator 410. Rather, Oka teaches that "since a boron doped silicon thin film is formed by solid phase recrystallization, ... a polysilicon thin film containing larger crystal gains can be realized" and "the larger the grain size becomes, the larger an increase in ON current of a TFT can be achieved" (column 17, lines 15-21). That is, the increase in ON current in Oka appears to relate to larger grain size due to solid phase recrystallization, and the increase in ON current does not appear to relate to Oka's gate insulator film 405 and interlevel insulator 410. As such, the asserted motivation does not make sense. Therefore, the Official Action does not make clear why one of ordinary skill in the art at the time of the present invention would have had a reason to modify Tsujikawa or combine Tsujikawa with Oka's gate insulator film 405 and interlevel insulator 410.

The Official Action appears to propose a combination of Tsujikawa, which describes a reflective-type device, with Parks, which describes a transparent-type device. Specifically, in Figure 1A of Tsujikawa, arrow 451 shows both an incidence direction and a reflection direction. In addition, a reflection film is provided under the liquid crystal. That is, Figure 1A appears to show a reflection-type light valve. Further, in Figure 9A, a pixel electrode has a reflecting property. Therefore, Tsujikawa appears to teach or suggest that a pixel electrode is a reflective electrode. On the other hand, Parks discloses that indium tin oxide is used as a pixel electrode. Therefore, Parks appears to teach or suggest that a pixel electrode is a transparent electrode. Since Tsujikawa and Parks teach or suggest opposite directions of light, the Applicant believes that the proposed combination of Tsujikawa and Parks is inappropriate.

The Official Action appears to propose a combination of Tsujikawa, which describes a light valve, with Parks, which describes a liquid crystal display. A light valve is a different type of device as compared to a liquid crystal display. For example, in a light valve, a change of voltage applied to a liquid crystal is controlled by incident light.

Since Tsujikawa and Parks teach or suggest different devices, the Applicant believes that the proposed combination of Tsujikawa and Parks is inappropriate.

Therefore, reconsideration and withdrawal of the rejections under 35 U.S.C. § 103 are in order and respectfully requested. Since the Official Action has not presented a *prima facie* rejection, at the very least, the Examiner's arguments are not suitable for appellate review. The Applicant respectfully requests that the present application be allowed on the existing claims pursuant to the provisions of the Pre-Appeal Brief Conference Pilot Program (1296 Off. Gaz. Pat. Office 67 (July 12, 2005); extended January 10, 2006).

Should the Examiner believe that anything further would be desirable to place this application in better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number listed below.

The Commissioner is hereby authorized to charge fees under 37 C.F.R. §§ 1.16, 1.17, 1.20(a), 1.20(b), 1.20(c), and 1.20(d) (except the Issue Fee) which may be required now or hereafter, or credit any overpayment to Deposit Account No. 50-2280.

Respectfully submitted,

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